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AFT Fathom 13	AFT Fathom 12	AFT Fathom 11
The Workspace Layers toolset significantly enhances the model building process. Easily update Pipe & Junction size, color, Display Text, visibility, and more from a centralized location.	Visually analyze alternatives with Multi-Scenario Graphing, comparing profile graphs from multiple scenarios on a single plot	Multi-Scenario Comparison: Data can be compared between multiple scenarios to show changes made
The new Valve Window now clearly distinguishes between different data sources such as User Specified, Characteristic, or Handbook, to understand the available options.	The Library Manager (previously the Database Manager) has been completely revised and now offers a consolidated way to use and customize libraries of fluids, pipe materials, junctions, etc.	Cross-plot Pump vs. System curves across multiple operating scenarios
Utilize any image as a junction icon, simply by right-clicking on the Toolbox icon	Use the NEW online Help System for centralized documentation and examples from your browser	Multi-level undo and redo on the Workspace
New four-component slurry model for the SSL module, developed by leading industry experts, captures complex slurry regimes more accurately.	Streamline your setup from the new Analysis Setup menu, a user-friendly workflow condensing multiple model-wide specification windows into 1	All Summary Output parameters can now be displayed on the Visual Report
The Design Alert Manager has been reorganized to improve the process of creating and applying user-defined alerts.	Convert Shear Rheometer data for Power Law and Bingham Plastic viscosity models with a helpful visual guide	Double-click on a junction on the Toolbox to add multiple to the Workspace (similar to pipes)
Draw on the isometric grid without forcing any particular pipe routing with Isometric Freeform drawing mode.	Apply the Herschel-Bulkley viscosity model for shear thinning or thickening fluids with a yield stress	Convert intermediate elevations to new pipes and branches
New Annotation shapes and a line tool allow more flexible markup such as revision numbers or change requests.	Warnings, errors and Design Alerts shown in the Output are now color coded and organized in a prioritized list for quick review.	Can now save 'design alerts' and load from a file

Ready to access these new features? Email [info@aft.com](mailto:info@aft.com)

# Full list of New Features you can use in AFT Fathom™ 13

## Significant New Features

- **Workspace Layers** - The Workspace Layers toolset significantly enhances the model building process, providing unparalleled customization options.
- **Four-Component Slurries** - New four-component slurry model for the SSL module, developed by leading industry experts, captures complex slurry regimes more accurately.
- **Improved Valve Window** - Clarifies and expands the available valve loss models, and makes it easier to define a valve characteristic, which can be critical for an accurate model.
- **Streamlined Design Alerts** - Greatly simplified the Design Alert Manager to allow easier and faster specification of important design limits.

## Notable Features

- **Custom Junction Icons** - Use your own images.
- **Isometric Freeform Drawing** - Draw without forcing any particular pipe routing.
- **New Annotations** - Use shapes and tools to allow flexible markup such as revision numbers or change requests.
- **Set Workspace Print Area** - Show printing page borders on the workspace and customize the printing area.
- **Customize Graph From Workspace Options** - Custom selection of any graph parameter on the Workspace.

## Modeling Additions and Improvements

- **Laminar Corrections Improvements** - Laminar corrections are now off by default, messages indicate if they were applied or are recommend, and output parameters indicate the correction strength.
- **Prevent Backflow at Sprays** - New "No Inflow" Special Condition for Spray junctions.
- **Zero-Length Connector Improvements** - now behave like standard pipes, including selection and graphing tools.
- **Distinguish User and AFT Fluids** - Easily find custom entries.

## Improved Importing

- **Import Bend r/D** - Import PCF bends with appropriate r/D
- **Import Speed Increase** - Import up to 10x faster
- **Better Defaults and Display** for Imported Models
- **Improved Import of Pipe Material Links**
- **Display CAESAR II Node Names** as junction names.

## Behind the Scenes Improvements

- **Graphing Optimizations** - Significant improvements to backend graphing code, to provide additional stability now and more capabilities in the future.
- **eLicense Access Improvements** - Improved security and the release of license seats not in use.
- **Output Improvements** - Improvements to backend output code provides additional stability.
- **Timed Recovery File** - Automatically generate a backup of your model to recover unsaved work.

## Output Parameters and Messages

- **Pump RPM Output Parameter** - Report speed in RPM, in addition to percent.
- **Dimensionless Heat Transfer Output Parameters** - Grashof, Nusselt, Prandtl, and Rayleigh Numbers
- **Deep Laminar Caution** - Simple loss models do not account for exceptionally laminar flow, this new message provides a caution if you enter this range.
- **POR/AOR in Pump Summary** - Shows the values for Preferred and Allowed Operating Ranges.
- **Events Messages in New Format** - Events now show in a clean, collapsible format similar to Warnings.
- **XTS Module Tank Overflow and Drain Warnings** - Indicate if a Tank has overflowed or drained.

## Add-On Modules



Goal Seek & Control



Extended Time Simulation



Settling Slurry



Automated Network Sizing

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